

NEW BOMBYLIID FLIES FROM CHIAPAS, MEXICO

(Diptera)

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The specimens here described are from material reared from nests of the bee genus *Melitoma*, at Francia, near Cintalapa Chiapas, Mexico. This material was collected in the field by R. C. Bechtel and E. I. Schlinger on a Mexican expedition sponsored by the Associates in Tropical Biogeography, University of California, Berkeley, and given to the writer by E. G. Linsley and J. W. MacSwain of the University of California.

The flies before us belong to the genus *Anthrax*, perhaps better known in our American literature under the generic names *Argyramoeba* and *Spogostylum*. I have compared these specimens with related forms in my collection, eventually to be deposited in the California Insect Survey material at Berkeley.

***Anthrax cintalapa* Cole, new species**

(Figure 1)

The basic body color is black, with mostly black pile. The wings are hyaline, with a dense pattern of blackish color very similar to that of *irrorata* Say.

Male: *Head* black, typical in form for the group (rounded, with a receding face), tomentum and pile black. Antennae black, third segment with the usual "pencil" of hairs at tip, slender portion slightly longer than the broad base. Occiput with a few whitish tomentose spots, most noticeable in posterior emargination of the eye. *Mesonotum* and scutellum black, black pile scant and short on disc; some white patches of scales and some whitish pile on prothorax; whitish scales at apex of scutellum; some reddish yellow hairs beneath wing base. Pleura dull gray-black, with scant vestiture, mostly pale scales. Coxae black, with black hairs and whitish scales. *Legs* with black setae and silvery white tomentum; femora black, hind pair paler beneath; tibiae and most of basitarsi yellowish brown, apical tarsal segments black. *Abdomen* broad at base, tapering rapidly; black in color, with rather long, black bristle-like hairs; tomentose covering of dorsum largely black and appressed; a white tomentose triangle on second abdominal tergite and white tomentose spots on posterior portion of tergites three to five. Hypopygium largely reddish in color, the dorsal valves large, tapering, elongate and of characteristic shape. Halteres mostly black, the tip of the knob yellowish white. *Wings* blackish basally, and with a most intricate pattern of blackish areas and droplets, too involved to describe (see fig. 1). (The

costal cell, for example, has twelve small spots alternating with small hyaline areas.)

Female: With the same general color, vestiture and wing marking. Allotype slightly reddish in body color of pleura and abdomen, being somewhat teneral. Considerably more white pile and tomentum on head and thorax than in male; the white scales at apex of abdomen more erect and enlarged apically.

Holotype male, from FRANCIA, EIGHT MILES N.E. CINTALAPA CHIAPAS, MEXICO (reared by R. C. Bechtel, E. I. Schlinger), April 3, 1953; female allotype, with same date, tips of both wings broken off; one female paratype, with same date, a rather teneral specimen. All specimens were reared from nests of *Melitoma euglossoides* Lepeletier and Serville, and each has a pupal case mounted on the pin beneath the body of the emerged adult.

This species is described, knowing that it might prove to be a race or variant of the common *Anthrax irrorata* Say, better known in old collections and early literature as *Anthrax oedipus* Fabricius (described from the West Indies). The parent stock,

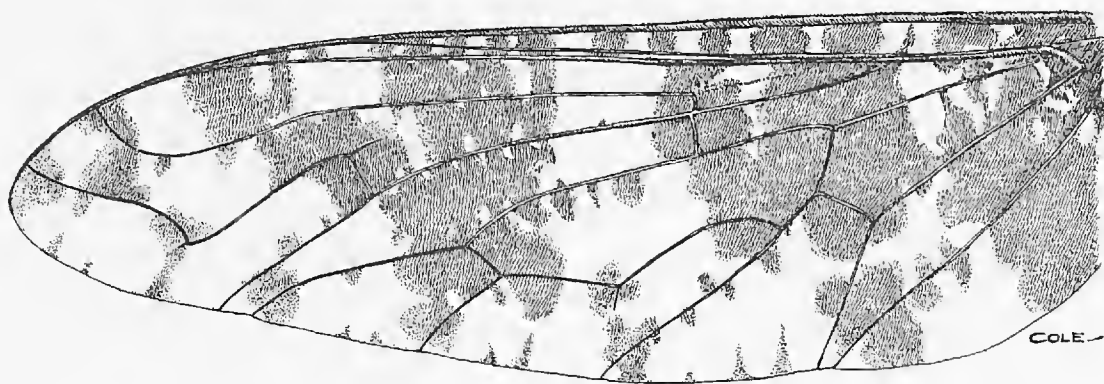


Fig. 1, Wing of *Anthrax cintalapa* Cole.

I would guess, was South American. I have a closely related species, with similar spur veins, basic wing pattern, and markings, from Constitucion, Chile. Specimens from Oregon (considered *irrorata*) and from California have a much more reduced and spotted wing pattern, as have some specimens from the East; however, one specimen from Maryland has a more "coagulated" pattern, as has one from New York (larger dark areas, the central portion of the wing largely solid brownish black). In all of these specimens the male genitalia present good specific characters and the hypopygium is comparatively large. My collection is not adequate to make any analysis of this "complex."

Anthrax mexicana Cole, new species

The basic body color is lead-black, with a mixed black and whitish covering of pile, but the general appearance "black." The wings are smoky black basally, the apical half hyaline, the color gradually shading into the clear area, with no sharp line of demarcation. Length about 11 mm., wing 12.5 mm.

Male: Head black, face and frons rounded, receding, somewhat bulbous; face thinly gray pollinose; frons and face with short, erect covering of black pile (like a "butch"); some silvery hairs above oral margin. The very narrow cheek margin below the eye is yellowish. Mesonotum and scutellum dull black; pile of mesonotum mixed black and gray, paler and longer anteriorly, with ruff mostly gray and white. The triangular scutellum has black hairs, longer on margin, with a few whitish scales on disc. Pleura and pectus thinly pale-haired, long and white below pronotum. Calypteres black, with a pale fringe. Legs black, with black setulae and a flat black covering of scales which has a silvery sheen in certain lights. Abdomen black, broad at base and tapering. The short first segment has pale pile, a dense "powder puff" of white pile on each side, contrasting with the dense black pile of the following three tergites. The three apical tergites (5, 6 and 7) with a dense appressed mantle of silvery scales. The more or less concealed hypopygium reddish in color. Knob of halteres ivory white at tip and below, otherwise black. The comparatively large wings deep smoky black basally, shading back from costa across base of cell R_5 (1st posterior), basal half of discal cell, and base of cell Cu_1 , the blackish color filling all of anal cell and anal angle. There is a long spur at base of R_{2+3} (none projecting into cell R_4); no spur vein projecting into cell M_3 as in *cintalapa* (see fig. 1).

Female: Very similar to male in most characters. No silvery pile above mouth margin, and the large silvery apex of the abdomen is lacking, scales reduced to a few whitish and more erect ones on sides of tergites six and seven.

Holotype male, from FRANCIA, EIGHT MILES N.E. CINTALAPA CHIAPAS, MEXICO (reared by R. C. Bechtel and E. I. Schlinger), April 3, 1953; female allotype, with same data; one male paratype, also with the same data on the pin. Adults were reared from old cells of *Melitoma* which had been appropriated and provisioned by *Centris hoplopoda* Moure. The empty pupal case is on the pin beneath the two types, lacking in the paratype male.

I have not seen this species in collections made in the Southwest, and it is not among the few species noted by Osten Sacken in the Biologia. *Anthrax anale* Say and *A. argyropyga* Wiedemann have the male abdomen silvered at the apex, but are much smaller, and the wing is sharply hyaline and black, without shading.